

STRAWBERRY PLANT NAMED 'CAMARILLO'

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1. BACKGROUND OF THE INVENTION

1007153.021542
The new variety originated as a result of a controlled cross between the strawberry plants Baeza (U.S. Plant Patent No. 11,548) and '33X257' (unpatented variety of Driscoll Strawberry Associates, Inc.) in an ongoing breeding program, and was discovered in Ventura County, California in October, 1997. The original seedling of the new cultivar was asexually propagated by stolons in a nursery in Shasta County, California. Propagules were transplanted to a controlled breeding plot in Ventura County, California, where the variety was identified and selected for further evaluation. Camarillo was subsequently asexually propagated and underwent further testing Ventura County, California for five years. This propagation and testing has demonstrated that the combination of traits disclosed herein which characterize the new variety are fixed and retained true to type through successive generations of asexual reproduction.

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2. SUMMARY OF THE INVENTION

The present invention relates to a new and distinct variety of strawberry named Camarillo. The variety is botanically identified as *Fragaria x ananassa*. The new variety is distinguished from other varieties by a number of characteristics as set forth in Tables 1-4.

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3. COMPARISON TO SIMILAR VARIETIES

The varieties which we believe to be similar to Camarillo from those known to us are Baeza (U.S. Plant Patent No. 11,548) and Ventura. There are several characteristics of the new variety that are different from, or not possessed by Baeza and Ventura. The new variety has a longer fruiting truss, a dark green coloration of the upper side of the leaf, a globose plant habit, even fruit coloration, and an absent to small hollow center size.

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4. BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying photographs show typical specimens of the new variety, including fruit, foliage and flowers, in color as nearly true as it is reasonably possible to make in color illustrations of these characteristics.

- 5 Fig. 1 shows a close-up photo of the whole plant.
Fig. 2 shows the whole plant.
Fig. 3 shows the leaves of the plant.
Fig. 4 shows the upper side and the under side of the flowers.
Fig. 5 shows a close-up of the fruit.
10 Fig. 6 shows the fruit in longitudinal cross-section.

5. DESCRIPTION OF THE NEW VARIETY

- The following detailed description of the new variety is based upon observations taken of plants and fruit grown in Ventura County, California, U.S.A. Observations of
15 Camarillo, Baeza and Ventura were taken in side by side comparison in 2001. This description is in accordance with UPOV terminology. Color designations, color descriptions, and other phenotypical descriptions may deviate from the stated values and descriptions depending upon variation in environmental, seasonal, climatic and cultural
20 conditions. Colors are described and the most similar color designations are provided from the Royal Horticultural Society (RHS) Colour Chart.

5.1 PROPAGATION

- The new variety is principally propagated by way of stolons. Although propagation
25 by stolons is presently preferred, other known methods of propagating strawberry plants may be employed.

5.2 CHARACTERISTICS OF THE NEW VARIETY

- Information on the new variety is presented in Tables 1, 2 and 3. In the tables, the
30 flowers described are secondary flowers except where indicated. The fruit described is the secondary fruit on one year old plants. Fruit and flower measurements are an average of both primary and secondary fruit and flowers.

Table 1 provides a quantitative comparison of the plant and fruit characteristics of the new variety Camarillo compared with characteristics of Baeza and Ventura. Table 2 provides additional information of the plant and fruit characteristics of the new variety Camarillo compared with characteristics of the varieties Baeza and Ventura. Table 3 provides reactions of the new variety to stresses, pests and disease as compared to the varieties Baeza and Ventura. Table 4 provides isozyme characteristics of the new variety as compared to the varieties Baeza and Ventura.

TABLE 1
DETAILED COMPARISON OF CAMARILLO, BAEZA AND VENTURA

		CAMARILLO	BAEZA	VENTURA
Plant Characteristics				
	Height of Plant (cm)	23.3	20.8	21.0
	Spread of Plant (cm)	42.7	38.2	38.7
	Number of Crowns	4.8	3.0	3.3
Leaf Characteristics				
	Terminal Leaflet Length (cm)	8.2	8.5	7.5
	Terminal Leaflet Width (cm)	8.2	8.7	7.5
	Terminal Leaflet Length/Width	1.0	0.98	.99
	# Teeth/Terminal Leaflet	24.8	25.4	22.4
	Color of upper side	dark green	light to	medium green
		147A	medium green	137A
			147A	
	Color of under side	light green	light green	light green
		138B	138B	138B
	Petiole Length (cm)	15.9	14.5	14.2
	Petiole Color	149A	144A	145A
		yellow green	yellow green	yellow green
	Bract Frequency	42%	67%	50%
		mostly double	mostly double	mostly double
	Stipule Length (cm)	3.5	3.5	2.8
	Stipule Width (cm)	1.2	1.1	1.1

Stolon

Diameter at base of last daughter

4.09

4.12

4.05

Flower Characteristics

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Petal Length (cm)

1.22

1.10

1.19

Petal Width (cm)

1.39

1.22

1.09

Petal Length/Width Ratio

0.88

0.90

1.09

Petal color

155B

Flower Diameter (cm)

2.61

2.50

2.40

Calyx Diameter (cm)

2.98

2.55

2.57

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Fruiting Truss

Length (cm)

32.0

28.5

24.8

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Fruit Characteristics

Fruit Length (cm)

4.1

4.2

4.5

Fruit Width (cm)

4.0

3.8

4.0

Fruit Length/Width Ratio

1.03

1.11

1.11

Average Berry Weight (g)

21.1

21.5

24.3

External Color

46A

46A

46A

red

red

red

Internal Color

34B & 155A

42B & 155D

44A

orange red &

white &

orange red

white

orange red

20

Average % brix

9.26

10.38

9.27

Brix/Acid Ratio

12.62

12.87

12.95

Achene Coloration

184B and 13B

13A and 46A

13B and 45B

Marketable Yield in

410

293

118

2001(g/plant)

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TABLE 2
CHARACTERISTICS OF CAMARILLO, BAEZA AND VENTURA

	CAMARILLO	BAEZA	VENTURA
5 Plant			
Habit	globose	flat globose	globose to flat globose
Density	open	open	medium
Vigor	medium	medium	weak to medium
10 Leaf			
Shape in cross section	concave	concave	slightly concave
Interveneal blistering	very strong	strong to very strong	strong
Glossiness	medium to strong	weak	medium
Number of leaflets	three only	three only	three only
15 Terminal leaflet margin profile	revolute to flat	revolute to flat	revolute to flat
Terminal leaflet shape of base	rounded	obtuse to rounded	rounded
Terminal leaflet shape of teeth	rounded	acute to obtuse	obtuse
Stipule pubescence	sparse	sparse	sparse
Petiole pubescence	sparse	very sparse to sparse	sparse
Petiole pose of hairs	outwards	outwards	outwards
20 Stolon			
Amount	few to medium	few to medium	few to medium
Anthocyanin coloration	weak to medium	weak to medium	medium
Thickness	thick	thick to very thick	medium to thick
Pubescence	sparse	medium to dense	dense
25 Inflorescence			
Position relative to foliage	above	level to above	level to above
Diameter of calyx relative to corolla on secondary flowers	smaller to same size	same size to larger	smaller
Diameter of inner calyx relative to outer on secondary flowers	same size	same size	same size
30 Spacing of petals	overlapping	overlapping	touching to overlapping

Fruiting Truss

Attitude at first picking	prostrate	prostrate	semi-erect
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Fruit

5	Predominant shape	cordate	conical	conical to cordate
	Difference in shapes between primary and secondary fruits	slight	very slight to slight	slight
	Band without achenes	absent or very narrow	very narrow to narrow	narrow
	Unevenness of surface	weak	weak to medium	weak to medium
10	Evenness of color uneven	even	slightly uneven to even	slightly even
	Glossiness	strong	strong	strong
	Insertion of achenes	below surface	level to below surface	below surface
	Insertion of calyx	in a basin	level	in a basin to level
15	Pose of the calyx segments	spreading	spreading to reflexed	reflexed
	Size of calyx in relation to fruit on secondary fruit	smaller	same size to larger	smaller
	Adherence of calyx	strong	strong	weak to medium
	Firmness of flesh	firm	medium to firm	firm
20	Evenness of flesh color	slightly uneven	uneven	slightly uneven
	Distribution of flesh color	marginal and central	marginal to central	marginal to central
	Hollow center size	absent to small	large	small
	Sweetness	medium	medium	medium to strong
25	Texture when tasted	medium	medium	fine
	Acidity	medium	medium	weak to medium
	Time of Flowering	mid to late August	mid to late August	mid to late August
	Harvest Interval in 2001 (Week Ending)	9/29-12/22	9/29-12/22	10/6-12/22
30	Type of Bearing	fully everbearing	fully everbearing	fully everbearing

5.3 REACTION TO STRESS, PESTS, AND DISEASE

TABLE 3

	CAMARILLO	BAEZA	VENTURA
Reaction to Stress			
5 high pH	moderately resistant	moderately resistant	moderately resistant
high soil salt levels	moderately resistant	susceptible	moderately resistant
Reaction to Pests			
10 <i>Tetranychus urticae</i>	moderately susceptible	moderately susceptible	moderately susceptible
<i>Lygus hesperus</i>	susceptible	susceptible	susceptible
Reaction To Diseases			
Botrytis fruit rot	susceptible	susceptible	moderately susceptible
15 Powdery mildew	susceptible	highly susceptible	highly susceptible
<i>Verticillium</i> wilt	susceptible	susceptible	susceptible
Strawberry Mottle Virus	moderately resistant	moderately resistant	moderately resistant
<i>Xanthomonas fragariae</i>	moderately resistant	moderately resistant	moderately resistant

5.5 ISOZYME ANALYSIS

In addition to the morphological description above, the new cultivar Camarillo has been analyzed to obtain an indication of its genetic makeup to provide further means for identifying the new variety and distinguishing it from some other somewhat similar and/or related strawberry varieties. Specifically, leaf samples of Camarillo, Baeza, and Ventura were analyzed by electrophoresis for isozyme patterns of the enzymes phosphoglucosomerase ("PGI"), leucine aminopeptidase ("LAP") and phosphoglucosomutase ("PGM"). See J. Amer. Soc. Hort. Sci. 106:684-687. Isozyme characterization of the three varieties is presented in Table 4, with the letters representing the banding patterns for each enzyme as designated in the above-identified article.

TABLE 4
ISOZYME ANALYSIS FOR CAMARILLO, BAEZA AND VENTURA

Locus	CAMARILLO	BAEZA	VENTURA
PGI	A2	A1	A2
LAP	B3	B3	B3
PGM	C4	C3	C4

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